

(I)
$$R^1 = H$$
 $R^2 = NH_2$

(II)
$$R^1 = NH_2 R^2 = H$$

(II)
$$R^1 = NH_2$$
 $R^2 = H$
(III) $R^1 = NH_2$ $R^2 = OH$
(IV) $R^1 = OH$ $R^2 = NH_2$

(IV)
$$R^1 = OH R^2 = NH_2$$

Adenine, guanine, cytosine, thymidine, uridine. (Base)

FIG._3

FIG._4B

o-
$$P=0$$
NHz

 $O-P=0$
NHz

 $O-P=0$

Base

 $O-P=0$
 $O-P=0$
 $O-P=0$
 $O-P=0$

NHz

 $O-P=0$

NHz

 $O-P=0$

NHz

 $O-P=0$

NHz

Figure 5

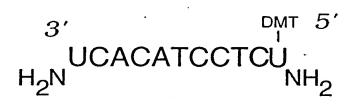
Synthetic Scheme

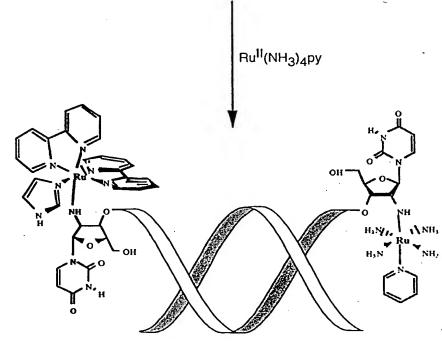
2'-amino-2'-deoxyuridine derivatized to control pore glass (CPG)

CPG

05

$$3'$$
 DMT
 5
 H_2N
 NH_2





Condense PNA ~

Metal + ligands

PNA . ΙŻ -Metal + ligands

Figure 8A

Pt
$$\longrightarrow_n$$
 Si(CH₂)₃NH(CH₂)₂NHR-oligonucleotide

Figure 8B